

NOTES ON ASILIDÆ, WITH TWO NEW SPECIES.

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In the genus *Asilus* Hine has used as diagnostic characters the bristles on hind border of the scutellum and on front side of the hind tibiæ. There are cases where these seem to help very much, but there are so many cases where they mislead that I think a division of the genus on a color character (whether hind femora entirely black or not) is much more useful for our Eastern species. For *A. notatus* but two scutellar bristles have been described, yet in many cases there are four or five, and often three. The tibial bristles are apt to confuse *A. lecythus* with *A. paropus*, if one is not familiar with the species.

Asilus autumnalis sp. nov.

Face yellowish, white on the tuberosity, mystax black above and yellowish or yellowish-white below, beard white; antennæ black, third joint with sides more parallel than in *A. novæscotiæ*, bristle full as long as third joint. Thorax with dull black median stripe, indistinctly divided in front, and two spots each side behind, rest with yellowish dust, black hair in front and black bristles behind; scutellum with two bristles on the hind margin; abdomen brown, mostly clothed with yellowish pollen on sides and behind, and yellow hairs all over. Legs with black femora, the tibiæ and metatarsi pale yellowish, with black tips. Wings as in *A. novæscotiæ*. The male forceps are more narrowed at tip than in *A. novæscotiæ*, and the tip more bent downward, so that the lower side is plainly concave. Length, 14-15 mm.

From Falls Church, Va., in August and September.

Our local species of *Asilus* which have the hind femora entirely black may be distinguished as follows:

1. Front and middle femora largely yellow; ovipositor very long... *flavifemoratus*.
Front and middle femora black.....2
2. All tibiæ pale only at extreme base; metatarsi black; mystax black and white..... *notatus*.
Tibiæ with more pale.....3
3. Mystax mostly golden, tibia I wholly clear yellow; abdomen black, with white hair, no yellow pile; male forceps furcate at tip..... *orphne*.
Male forceps not furcate, tibia I not all clear yellow.....4
4. Mystax mostly black; hind tibiæ mostly dark; abdomen dark, with pale gray apical margins to segments..... *sadytes*.
Mystax largely pale.....5

5. *Mystax* mostly white; male appendages not much narrowed nor bent down at tip. *novæscotiæ*.
Mystax whitish or yellowish below, black above; male appendages more curved and narrowed at tip. *autumnalis*.

Of *Leptogaster* I have taken most of the Eastern species, and in going over these I am inclined to keep *flavipes* and *favillaceus* as separate, at least as varieties, and would describe a new species. As in *Asilus* I think the color characters are here more valuable than some structural ones, at least more useful than venation.

1. No empodia; hind femora with band before broadest part; hind tibiæ with band at base and at middle dark; thorax pale; antennæ yellow. *annulatus*.
 Empodia present. 2
2. Hind tibiæ dark only at extreme tip; hind femur usually not plainly banded. . 7
 Hind tibiæ dark for a considerable distance; hind femur dark or dark-banded. 3
3. Legs mostly black; antennæ dark; hind legs very slender. *tenuipes*.
 Legs mostly pale. 4
4. Dorsum of thorax wholly shining black; hind femora with apical dark band, and another over the beginning of the swelling. *atridorsalis*.
 Dorsum not wholly shining black. 5
5. Thorax with three black stripes; hind femora with band over thickened part; antennæ pale. *virgatus*.
 Thorax without such stripes. 6
6. Antennæ dark; hind legs short, and the swelling greater than usual, and covered by broad band, the dark of hind tibiæ undivided. *pictipes*.
 Antennæ yellow; hind legs longer, the dark band on hind femora not so broad; the dark of hind tibiæ divided by pale. *brevicornis*.
7. Thoracic notum polished reddish, often a black spot behind on each side; hind femora with a small dark band. 8
 Thoracic notum not polished reddish. 9
8. Body mostly reddish. *testaceus*.
 Body mostly dark, and with pale marks. *badius*.
9. Abdomen yellow on basal part, only dark over the incisures. *incisuralis*.
 Abdomen with much more dark. 10
10. Abdominal segments dark, pale only near apex; hind femora show a faint dark mark, bristles of thorax black. *loewi*.
 Abdominal segments with pale before middle on third, fourth and fifth segments. 11
11. Lower anterior bristle of the two thoracic ones pale, larger species with duller marks. *favillaceus*.
 Both thoracic bristles dark, marks on abdomen strongly contrasting. . . *flavipes*.

L. virgatus Coq. probably is *L. carolinensis*. *L. incisuralis* Loew probably is *L. ochraceus*.

Leptogaster loewi sp. nov.

Similar to *L. favillaceus* and *L. flavipes*. Legs pale; hind femora with traces of a dark band over swollen part, tip of hind tibiæ dark. Antennæ yellow; thorax grayish brown above, with traces of median stripes, the two bristles each side black; abdomen grayish brown, tips of third, fourth, and fifth segments yellowish; venation yellowish-brown, as in *L. flavipes*.

Differs from *L. flavipes* (and *favillaceus*) in lacking pale on abdomen before middle of segments, and the more distinct band on hind femora. Length, 10–12 mm.

From Paeonian Springs, Va., 28 June, and Ithaca, N. Y., 7 July.

NOTES ON AULACOPHORA OLIVIER AND OIDES
WEBER.

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In the arrangement of my Austral-Malayan species of *Aulacophora* the following notes occur which may aid in the study of this group.

In Mr. Baly's table of males, Linn. Soc. Journ. vol. xx, p. 2, No. 14 *postica* Chap. is placed in § A_B: it should be in § A_A having the middle anal segment sulcate longitudinally, as stated by him in the description, p. 12, and verified by examination.

Unicolor Jac. cited by Baly l. c., p. 23, states that the ♂ is unknown; the description by Mr. Jacoby, Notes Leyden Mus. vol. v, p. 201, speaks of five specimens, all ♀'s; one of these five examples in the first Jacoby collection is now before me and is a ♂: the middle lobe of the anal segment is slightly concave, placing it in § A_B of Baly's table of ♂'s. Mr. Baly speaks of its resemblance to *Boisduvali* but the anal sulcation seems to me to differ somewhat and needs further comparison. If the two are identical it seems that intermediate forms must occur and I have seen none.

Semilimbata Baly described l. c., p. 74, has no characters given for the ♂; the type specimen apparently came from "New Guinea, (Wallace)"; in the first Jacoby collection among the unnamed material is a ♂ with the same label; the middle anal segment is deeply concave placing the species in Baly's A_A.

Denticornis Blackb. seems to me to be the same as *fraudulenta* Jac. The peculiarities of the two first joints of the ♂ antennæ described by Mr. Blackburn seem to me to be present in the ♂ type of *fraudulenta* (in my collection) and to have been overlooked